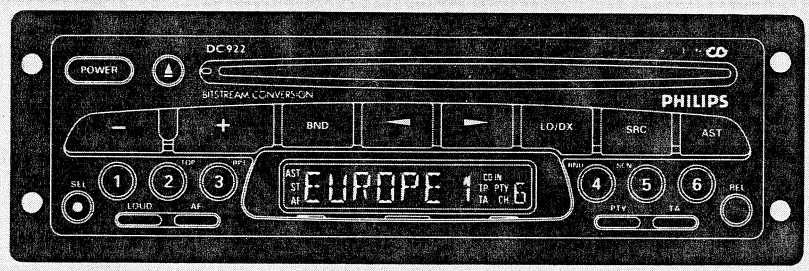
PHILIPS

PHIL-B01378

Philips DC922 CD

DIGITAL TUNER / COMPACT DISC COMBINATION



ERSATZTEILE
für Philips Car Systems
erhalten Sie bei:
KiVi Service GmbH
Windmühlenstr. 41 · 31178 Giesen/Emmerke
Tel.: 0 51 21 / 6 00 20 · Fax 0 51 21 / 60 02 54

Operating instructions
Mode d'emploi
Bedienungsanleitung
Gebruiksaanwijzing
Istruzioni d'uso
Instrucciones de manejo
Modo de emprego
Betjeningsning
Betjeningsvejledning
Käyttöohje

Philips Car Systems

B1378

Warning: To prevent short-circuiting, **disconnect** the negative car battery terminal until the set has been mounted and connected.

Avertissement : Afin d'éviter tout court-circuit, **déconnecter** la borne négative de la batterie du véhicule jusqu'à ce que l'appareil ait été monté et branché.

Warnung: Zur Vermeidung von Kurzschlüssen den Minuspol der Batterie für die Dauer des Radio-Einbaus **abklemmen.**

Waarschuwing: Om kortsluiting te voorkomen, moet u vóór het monteren en aansluiten van het apparaat de negatieve accuklem **losmaken.**

Avvertenza: Per evitare cortocircuiti, **staccate** il morsetto negativo della batteria dell'auto finché l'apparecchio non è stato montato e collegato.

Atención: Para evitar cortocircuitos, **desconéctese** el terminal negativo de la batería hasta haber terminado el montaje y conexión del aparato.

Aviso: a fim de evitar curto-circuitos, **desligue** o terminal negativo da bateria do carro até o aparelho ter sido montado e ligado.

Varning: Förhindra kortslutning genom att **lossa** minuskabeln från bilbatteriet. När bilstereon är monterad och ansluten sätts minuskabeln på plats igen.

Advarsel: For at undgå kortslutninger, skal kablet til minuspolen på bilbatteriet være **fjernet**, indtil autoradioen er monteret og forbundet.

Varoitus: **Irrota** oikosulun välttämiseksi akun miinuskaapeli radion asennuksen ja kytkemisen ajaksi.

Attention: Please adjust the volume at such a level that you can still hear traffic signals (horns, sirens...)

Attention : Veuillez régler le volume à un niveau vous permettant d'entendre les signaux du trafic routier (avertisseurs sonores, sirènes ...)

Achtung: Stellen Sie die Lautstärke bitte so ein, daß Sie noch die Straßengeräusche (Hupe, Sirene usw.) wahrnehmen können.

Let op: Regel het volume zodanig dat u verkeerssignalen (claxon, sirene, e.d.) nog goed kunt horen.

Attenzione: Per favore regolate il livello del volume in modo da poter sentire ancora i segnali della circolazione (avvisatori acustici, sirene ...).

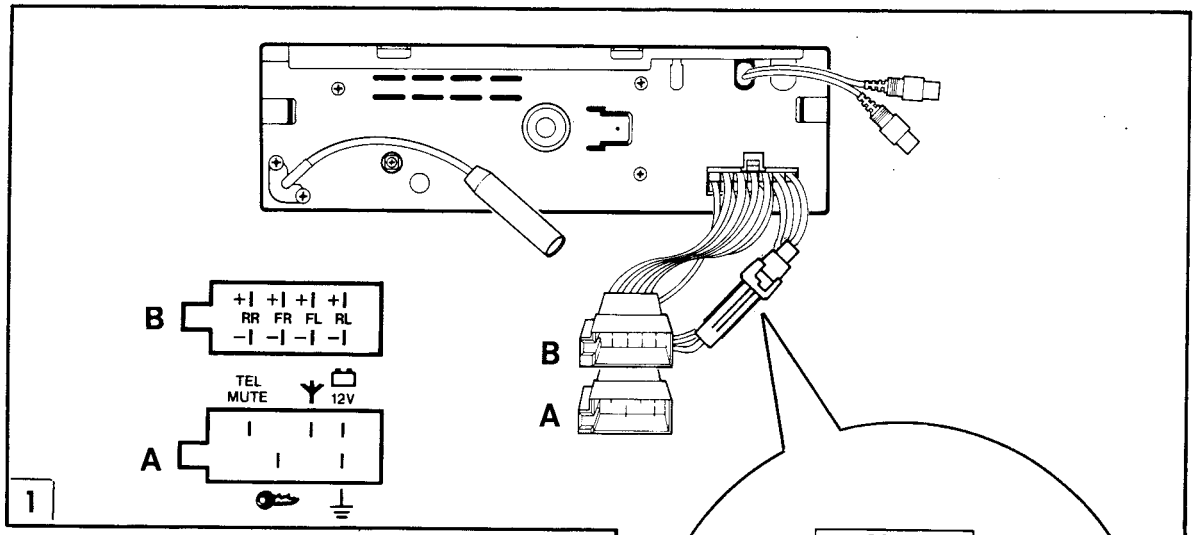
Atención: Ajústese el volumen a un nivel que permita oir las señales del tráfico (bocinas, sirenas ...).

Atenção: Regule por favor o volume num nível em que possa ouvir os sinais de tráfego (buzinas, sirenes ...).

Observera: Ställ in volymkontrollen så att du fortfarande kan höra signalerna (signalhorn, sirener ...) från dina medtrafikanter.

Bemærk: Justér aldrig volumenkontrollen til et højere niveau, end at De til stadighed kan høre signaler fra trafikken udenfor (bil-horn, siréner etc.).

Huomio: Säädä äänenvoimakkuuden taso sellaiseksi, että kuulet silti muun liikenteen äänet (äänimerkit, hälytyssireenit ...).



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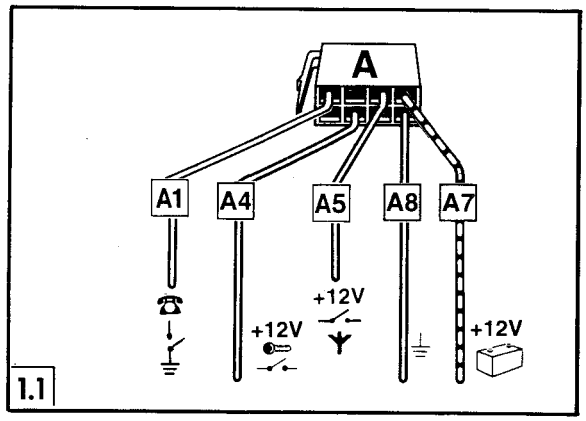

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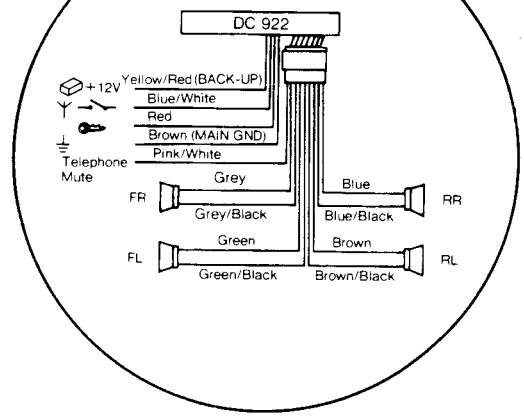

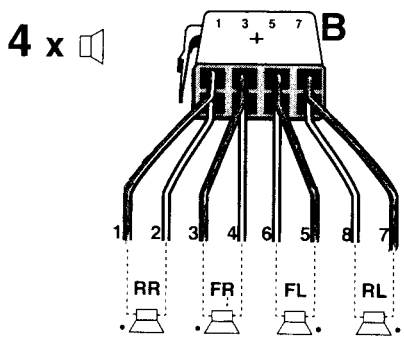

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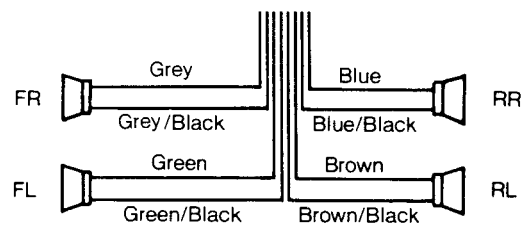

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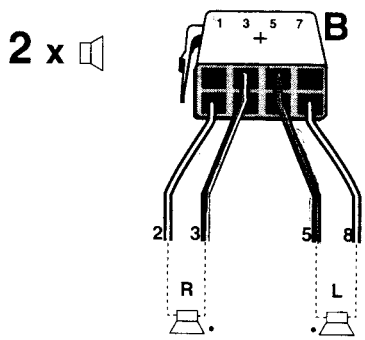

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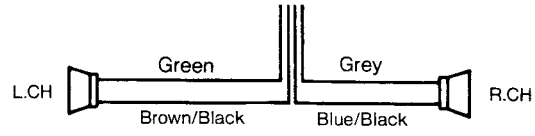

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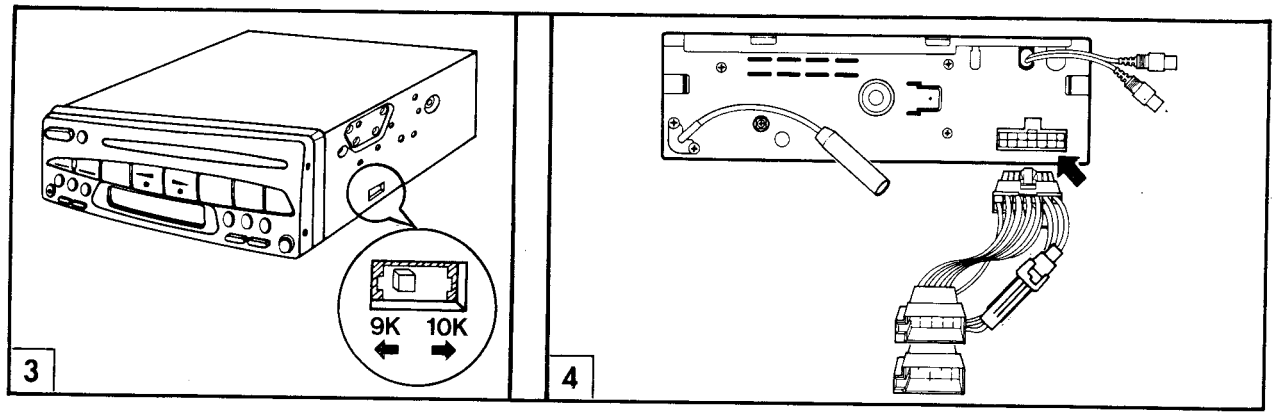
9K
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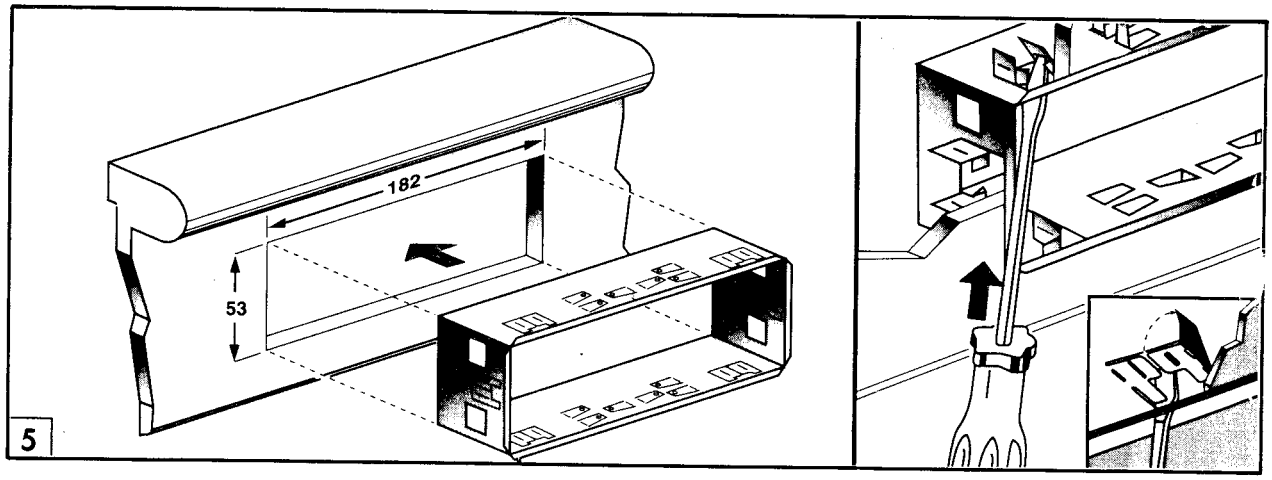
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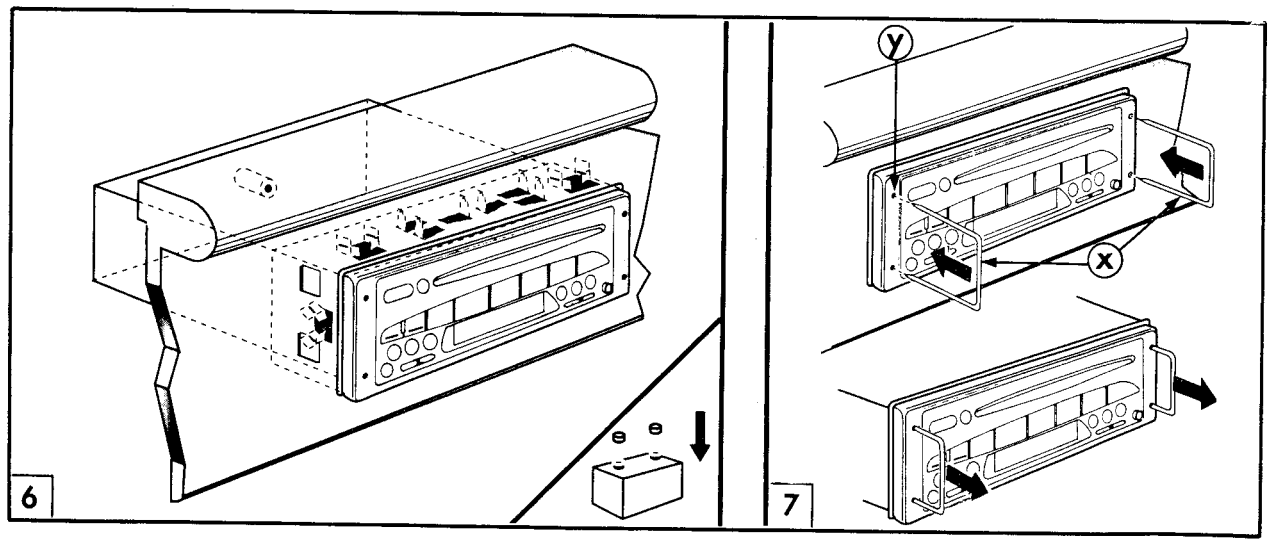
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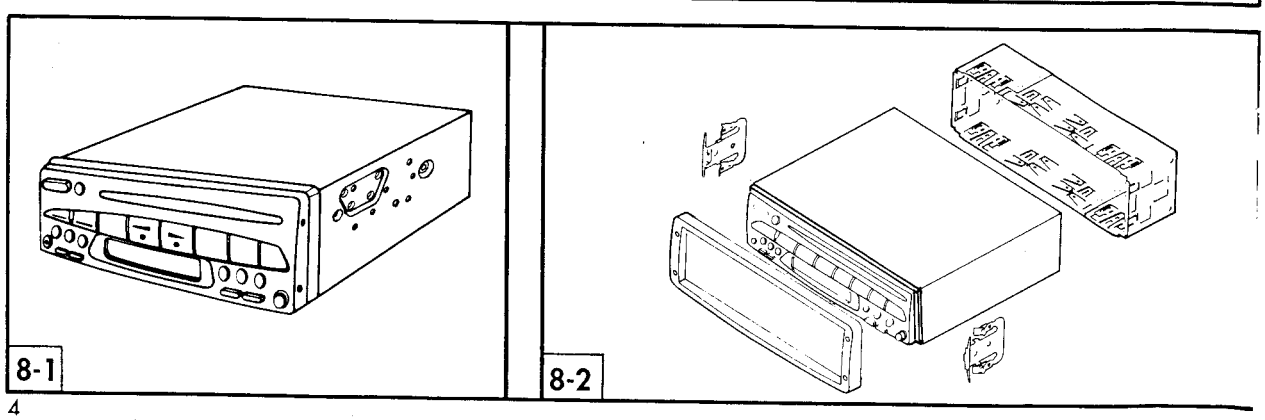
8-1
8-2

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SECURITY

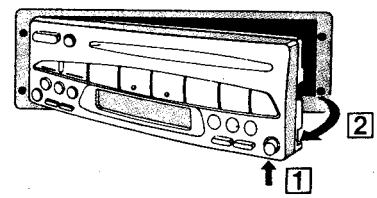
For theft protection this set is provided with the following security features:

1. DETACHABLE FRONT

- Always take the detachable front with you when leaving the car. Keep it in its protective case.

⚠ • For your own safety, always replace the detachable front before starting to drive.

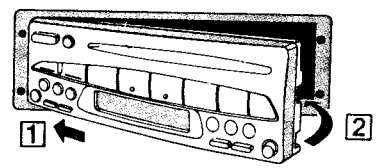
REMOVING FRONT



[1] Press the release key.

[2] Remove the front.

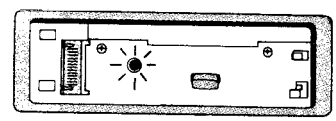
REPLACING FRONT



[1] Insert front starting with the left-hand side of the set.

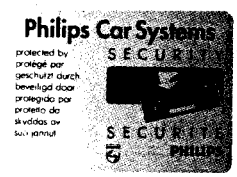
[2] Push the front until it clicks and mechanically locks into position.

2. WARNING LED



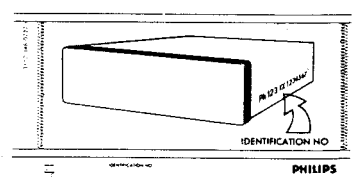
When the detachable front is removed, the red LED flashes to indicate that the set is protected (the set must be connected according to the MOUNTING INSTRUCTIONS')

3. SECURITY WARNING STICKERS



- Stick the supplied 'Security' warning stickers on your car windows.

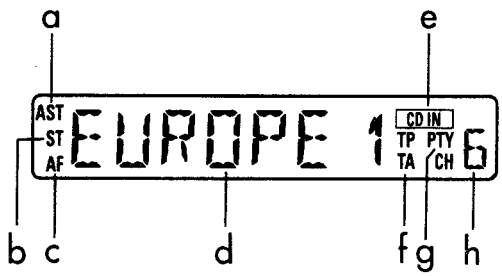
4. IDENTIFICATION NUMBER



This set has a unique identification number (stated on the 'Security card')

- Remove the 'Security card' before installing the set.

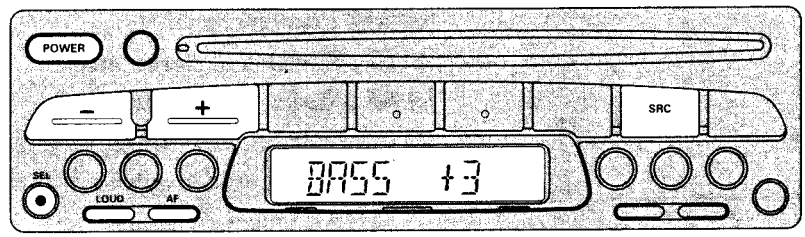
DISPLAY



(a) **AST :** Autostore
(b) **ST :** Radio is in stereo mode
(c) **AF :** Radio is in RDS mode *
(d) **Information concerning function**
Radio, CD, Audio setting or Initialisation
up to 8 letters or digits
(e) **CD-IN :** Radio is in CD-mode
(f) **TA :** Radio is in TA mode to give top priority to traffic announcement *
(g) **PTY :** Radio is in PTY mode to give top priority to each program type *
(h) **CH 6 :** Current preset station from 1 to 6

*. *only for RDS version*

ON/OFF, VOLUME, MUTE, SOURCE SELECTION...



ON/OFF

- Press the POWER key to switch the set ON or OFF.

SELECT

- Briefly press the SEL key to select desired audio mode to be adjusted (see SOUND ADJUSTMENT).
- When you press this key longer than 4 seconds, you enter the INITIALIZATION MODE.

INITIALIZATION

It is possible to modify some of the sets initial settings according to your preferences.
Selecting personal settings.

[1] Switch on the set.
[2] Press the "SEL" key for at least 4 seconds (until you hear a beep) to enter the initialization mode.
The display shows the first option:
2 SPKRS or 4 SPKRS (2 speakers or 4 speakers)
[3] Press the "BAND" key to select 2 or 4 speakers.
[4] Press ► to select the next option LOUDNESS ON/OFF.
[5] Press the "BAND" key to select LOUDNESS ON or OFF.
[6] Press ► to select the next option TA and PTY Alarm volume level. Display shows "TA LVL O" as example. *
[7] Press the "BAND" key to select the desirable volume level -2, -1, 0, +1 or +2.
[8] Press the "SEL" again to exit the initialization mode or wait at least 6 seconds for automatic exit.

SOURCE SELECTION

Briefly press the SRC key one or more times to select the desired source:
If it is pressed in radio mode, the display shows just 'radio' (no CD is loaded).
If it is pressed in CD mode, the set is switched to radio mode.
To return to the CD mode, briefly press the 'SRC' key again.

MUTE *

Briefly press the mute button to reduce instantly the sound. Display shows MUTE.

- To release the mute function press the mute button again.
- In the CD mode, this key functions as 'PAUSE' key.

* *only for non-RDS version*

... AND SOUND ADJUSTMENTS

VOLUME

Press the - key or + key to adjust the volume. (Keeping the key pressed adjusts the volume quickly).
When you adjust the volume, the display doesn't show the step size of range in below table.

TREBLE / BASS / FADER / BALANCE

The - and + keys become the controls for BASS, TREBLE, BALANCE or FADER when you select the relevant audio mode by select key ('SEL' key). After use, the function of the keys returns to volume control (after about 6 seconds).

[1] Select desired audio mode by SEL key and then the display shows the sequence of each audio mode : BASS - > TREB - > BAL - > FAD
[2] Press the - or + key to make the desired setting:

FUNCTION	DISPLAY	STEP SIZE	RANGE
Volume	-	2 dB	-66 dB to + 4 dB
Bass	BASS	3 dB	-12 dB to + 12 dB
Treble	TREB	3 dB	-12 dB to + 12 dB
Balance	BAL	2 dB	Left : -30 dB to 0 dB Right : 0 dB to -30 dB
Fader	FAD	2 dB	Front : -30 dB to 0 dB Back : 0 dB to -30 dB

LOUDNESS

If desired you can switch on loudness to increase the high and low volume settings.

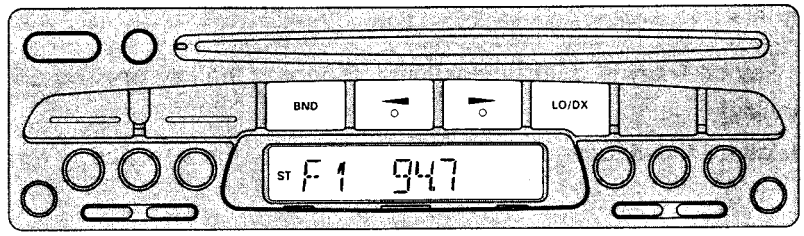
- When the key is pressed, the display shows the current state for 4 seconds by means of the text: "LOUD ON" or "LOUD OFF".
  If within that period the key is pressed again, the state is toggled and the new state is displayed-again for 4 seconds.

AUDIO-RESET

You can reset the treble, bass and balance settings to their mid-positions. (At the same time, the loudness function is set to 'OFF')

- Press the LOUD key for at least 3-4 seconds (until you hear a beep).
  -The display briefly shows 'RESET'

SELECTING FREQUENCY RANGE, WAVEBAND...



SELECTING FREQUENCY RANGE AND WAVEBAND

- To select the desired frequency range and frequency step in certain country, set the selecting switch to proper position before installation (see illustration3)

Note: The radio is initialized to European frequency range/step

- Briefly press the BND key to select the desired waveband

Waveband	EUROPE(setting to 9K<--)		USA(setting 10K-->)	
	range	step	range	step
FM1, FM2, FM3	87.5 - 108 MHz	50 kHz	87.9 - 107.9 MHz	100 kHz
MW1, MW2 *	531 - 1629 kHz	9 kHz	530 - 1710 kHz	10 kHz
(or AM1, AM2)				
LW *	144 - 288 kHz	1kHz		

*FM1, FM2, and FM3 cover the same frequencies. The same is true for MW1 and MW2. * The extra bands increase the possible number of preset stations.*

TUNING TO A STATION

- Tune to a radio station using one of the following methods:
  - Search tuning;
  - Manual tuning;
  - Recalling a preset station;
  - Auto-Store;
  - Selecting a programmer according to programmer type.

SEARCH, MANUAL TUNING

*You can use the ◄ and ► keys in two different tuning modes : search or manual tuning. When you switch on the set, it is in **search tuning** mode. You can switch to **manual tuning** mode if desired (see 'MANUAL TUNING')*

* *only for RDS version*

... SEARCH, MANUAL TUNING

SEARCH TUNING

Use search tuning to quickly tune to a station.

[1] Briefly press the ◄ key or ►

◄ = lower frequency: ► = higher frequency.

- You will receive a station after a short time.

[2] To search for another station, press the same key again.

If no station is found after the whole band has been searched, the radio searches for weaker stations.

Note: If you have switched on the TA mode, the radio will **only** search for stations allowing the reception of Traffic Announcements. (See 'TRAFFIC INFORMATION ON FM'.) *

LOCAL / DISTANT

- If search tuning stops too frequently, For Searching 'Local' stations only;
  Briefly press the LO/DX key to select LOCAL mode.
  The display shows 'LOCAL'.
- To return to DISTANT mode:
  Briefly press the LO/DX key to select Distant mode. The display show 'DX'.
  This is the preferred mode for search tuning in areas with weaker signals.

MANUAL TUNING

Use manual tuning if you know the frequency of the required station.

Switching from search tuning to manual tuning

[1] Briefly press both the ◄ and ► key together to select manual mode.
The display shows 'Manual'.

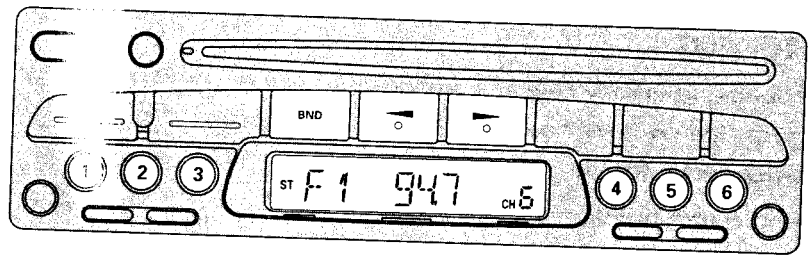
[2] Tune to the desired frequency with the ◄ or ► key.

- **Fast tuning:** keep the key pressed.
- **Step-by-step tuning :** Briefly press the key.

Switching back to search tuning

- To return to search tuning mode, briefly press both ◄ and ► key together.
- The radio **automatically** switches back to search tuning mode after about 6 seconds.

PRESETS



STORING STATIONS ON PRESET KEYS

This radio has storage locations for:

18FM stations	6 x FM1, 6 x FM2, 6 x FM3
12MW stations	6 x MW1, 6 x MW2
6LW stations	6 x LW *

1. Briefly press the BND key to select the desired waveband.
2. Tune-in the desired station (see SEARCH TUNING or MANUAL TUNING).
3. Press the desired preset key (1-6) **for at least 2 seconds** (until you hear a beep).

Note: When storing on FM station, the AF mode (**on** or **off**) is stored on the preset. *

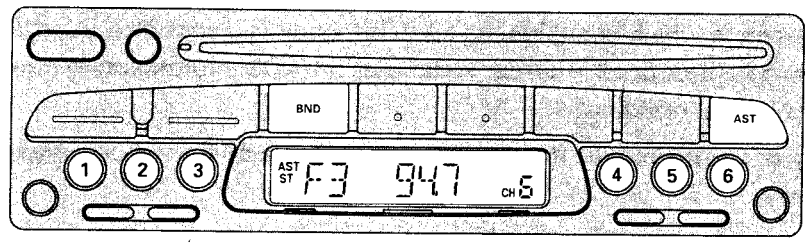
RECALLING A PRESET

1. Briefly press the BND key to select the desired waveband.
2. Briefly press the desired preset key (1-6)
   - The display shows the frequency of the selected station. For RDS stations this is followed by the station-name.

⚠ **Display blinks 'TP' and set bleeps?** Set is in TA mode but the selected station is too weak or does not broadcast traffic Announcements (TA). **

* olny for RDS version

AUTOSTORE



By simply pressing one key you can automatically store 6 stations on the FM or MW waveband.

Use Auto-Store to quickly find the strongest stations, for example when travelling through different reception areas.

When you use Auto-store, the new stations **replace** *any stations previously stored on the FM3/AST or MW2/AST band.*

AUTOMATICALLY STORING STATIONS ON PRESET KEYS

[1] Select the waveband on which you want to store the stations with the BND key. (FM or MW)

[2] Press the AST key.

- The set gives a beep and then mutes.
- The display shows 'STORE' during its storage.
- The radio stores 6 stations on FM3/AST or MW2/AST band.
- When it has finished you hear a beep.

Interrupting Auto-Store : If you accidentally press the AST key, you can cancel the Auto-Store function or by switching the set **off** and then **on** again before the AST function has been completed.

RECALLING AUTOMATICALLY-STORED STATIONS

[1] Select the desired waveband (if not already selected).

[2] Use the preset keys (1-6).

RADIO DATA SYSTEM (RDS) ON FM*

RDS is a system in which inaudible digital information is transmitted in addition to the normal FM radio broadcast. This car radio uses the RDS information to offer you many advantages, including:

- **Display of station-name:** The set displays the name of the station instead of its frequency.
- **Automatic retuning:** When the AF function is activated, the set maintains the best possible reception. The set continuously checks a list of Alternative Frequencies (AF) for the tuned radio station and automatically selects the best frequency for you.
- **Traffic information:** When the TA function is activated, the radio tunes to a station which may broadcast traffic information (TP=Traffic Programmer) and receives traffic Announcements (TA) when broadcast. You can receive Traffic Announcements even when listening to CD.
- **Information from related radio stations:** Enhanced other Networks (EON) is an RDS service where the broadcaster links some stations together. If you are tuned to a station which is linked to others by EON, the set is capable of receiving Traffic Announcements from both the tuned station and related stations.
- **Station selecting according to programmer type:** Using the PTY function, the set can detect and select the type of programmer (PTY = Programmer Type) being transmitted.
  For example : News, Sport, Classical music or pop music.
- **Automatic tracking of RDS regional programmers:** The radio ensures that when listening to a regional programmer, the radio will stay tuned to the same regional programmer as long as possible.
- **Emergency announcements (PTY Alarm):** This set automatically receives emergency announcements made by the broadcaster using the RDS PTY alarm service. (During the message the display shows 'ALARM' and the station-name alternately).

When an RDS transmission is received, the display shows the station name.

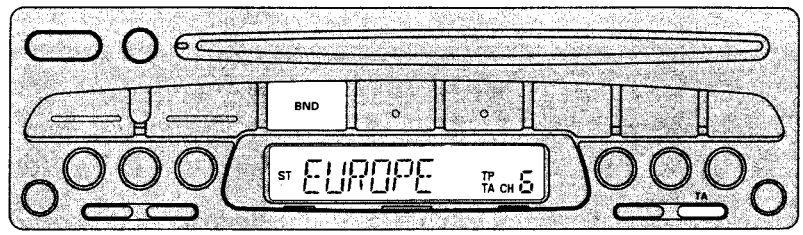
Switching off automatic retuning

- If you want to prevent the radio from retuning to Alternative Frequencies, briefly press the AF key.
  - The display doesn't show 'AF' and the radio stops checking Alternative Frequencies.
- To switch on automatic retuning again, briefly press the AF key again.
  - The display shows 'AF'

Notes

- Automatic retuning is activated again if you tune to another station.
- AF or no AF is stored on each preset. If you store a station on a preset when AF is switched off, the radio will not check Alternative Frequencies whenever you select this preset.

TRAFFIC INFORMATION ON FM or STEREO/MONO*



(ST/MO)*

*You can **switch on the TA mode** to give priority to traffic information. As a consequence the radio may automatically return to another station which enables it to receive traffic information.*

Switching on TA mode

[1] Select on FM band.
[2] Briefly press the TA key. **The display shows 'TA'**
- If the radio was not already tuned to a station enabling the reception of Traffic Announcements, the radio automatically searches until it finds another station.

- You will now hear Traffic Announcements when broadcast.
- When the set receives Traffic Announcements from other stations (linked by EON, the set temporarily shows the name of that station and 'TRAFFIC'.

Note: If the radio continuously searches, and you hear **beeps repeated at intervals**, you are in an area where no traffic information is broadcasted according to the RDS system.
Briefly press the TA key to switch off the TA mode.

Switching off TA mode

- Briefly press the TA key. **'TA' disappears from the display.**
  - Traffic Announcements no longer have priority.

Traffic Announcements during CD playback

If you play a CD, or mute the set while the TA mode is switched on (display shows 'TA'), you will still hear Traffic Announcements when broadcast.

Regional mode:

- The current state of the regional mode is indicated by a message "REG ON" or "REG OFF" displayed for 4 seconds after the key is pressed. When-within this time-the key is pressed again short, the state is toggled and the new state is displayed, again for 4 seconds.

Notes:

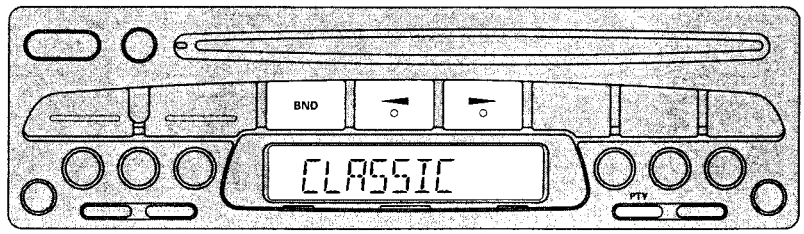
- If the TA mode is switched on, search tuning only selects stations which enable reception of Traffic Announcements.
- If the tuned station becomes too weak to enable the set to provide the RDS traffic service, you will hear **beeps repeated at intervals**. The radio automatically searches to find another station.
- **Volume level for traffic messages:** You will hear Traffic Announcements at a certain volume level. You can change this volume level if desired. See INTIALISATION mode.

STEREO / MONO*

[1] In non-RDS version, press this key to enable stereo or mono reception. The display shows 'STEREO' or 'MONO' for 4 seconds.
[2] In RDS version, stereo/mono functions automatically.

*. *only for non-RDS version*

PROGRAMME TYPE (PTY) or SCAN*



(SCAN)*

Many RDS stations transmit a 'PTY code' indicating the ***type*** *or programmer being broadcast (for example 'news' or 'pop music'). If the programmer changes during the day, the broadcaster may also change the PTY code.*

You can select stations according to the programmer type. This is useful if many stations are available.

Note: *PTY is not yet implemented in all countries.*

Selecting a programmer according to Programmer Type (PTY)

[1] Tune to an FM station.

[2] Briefly press the PTY key

- The display shows the programmer type of the tuned station for a few seconds (for example 'CLASSIC')
- If the display shows 'NO PTY' the station does not transmit the programmer type.

[3] press the ◄ or ► key to select the desired programmer type.

The following are examples of programmer types:

programmer type	Display		Programmer type	Display
News	NEWS		Varied	VARIED
Current Affairs	AFFAIRS		Pop Music	POP M
Information	INFO		Rock Music	ROCK M
Sport	SPORT		M.O.R.(Middle of the Road)	
Education	EDUCATE		MUSIC	MOR M
Drama	DRAMA		Light Classical	LIGHT M
Culture	CULTURE		Serious Classical	CLASSIC
Science	SCIENCE		Other Music	OTHER M

[4] Press the PTY key more than 2 seconds to start the search for a station with displayed programmer type.

To return to normal operation

- Wait for about 1 minute, **or**
- Briefly press the PTY key.
  - The display shows the station-name (or frequency) of the last-selected station.

SCAN*

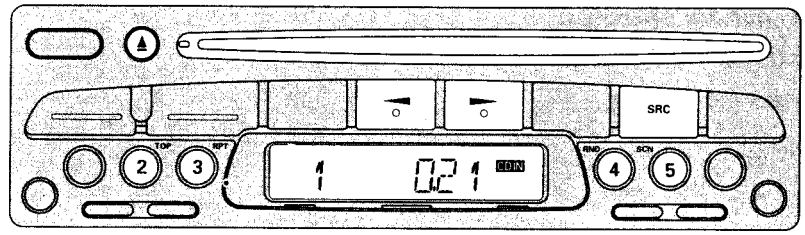
The scan function enables you to become familiarized with station in a convenient way.

[1] Briefly press the **SCAN** key.
- You hear the first 6 seconds of each station.

[2] Briefly press the **SCAN** key again when you hear a station which you like.
Normal broadcast resumes.

**. only for non-RDS version*

COMPACT DISC PLAYER



The CD player is suitable for both 8 cm and 12 cm discs.

CD PLAYBACK

Inserting a disc automatically switches the set on.

- Slide the disc (with the label facing upwards) into the slot.
  - The player starts playback, beginning with track 1.
  - The display then shows : the current track number and the elapsed time (for example '1 00:21')

If a disc is already inserted:

- Select 'CD' by briefly pressing the SRC key one or more times.

Notes:

- If you insert the disc upside-down, the display shows 'CD ERROR'
  You can remove it by pressing the ⏏ key.

EJECTING DISC

1. Press the ⏏ key.
2. Carefully remove the disc from the player.
3. When the disc is not removed from the player, it will be automatically re-inserted again after 10 sec.

PLAYING A SPECIFIC TRACK (NEXT / PREVIOUS)

- Briefly press the ◄ or ► key one or more times to select the desired track (for examples '01 > 02')
  - Playback resumes starting from the chosen track.

FAST FORWARD/BACKWARD

1. To quickly move to another part of the disc during playback, press the ◄ or ► key for at least 2 seconds.
2. Release the key to resume normal playback.

COMPACT DISC PLAYER (continued)

SCAN

The scan function enables you to become familiarized with the disc in a convenient way.

[1] Briefly press the SCAN key.
- The display shows 'SCAN' and the track number being scanned.
- You hear the first 15 seconds of each track.
- After the last track on the disc has been scanned, the set continues the scan from the first track on the disc.

[2] Briefly press the SCAN key again when you hear a track which you like.
- Normal playback resumes.

REPEAT TRACK

The repeat function enables you to replay your favorite track.

[1] Press the RPT (preset 3) key.
- The display shows 'RPT'
- The display then shows the track number.
- When the end of the track is reached, the same track will be played again until the repeat function is switched off.

[2] To **resume normal playback**, press the RPT key again.

RANDOM PLAYBACK

You can play the tracks on the disc in a random order.

[1] Press the RND, (preset 4) key.
- The display shows: 'RND' and the track number (for example 'RND 13').

Note:
- If you briefly press the ► key, a randomly-selected track will be played.
- If you briefly press the ◄ key, the previously played track will be recalled and played. (the set remembers the track numbers of the last tracks played.)

[2] To resume normal playback, press the RND key again

TOP

When the TOP function is activated (by pressing preset 2) the first track of CD is played.
By activating the TOP function, repeat track and SCAN mode are switched off.

CARE OF DISCS

Fingerprints: Avoid making fingerprints of the disc when you take it out.
Storage: Put disc back in its box immediately after ejecting it, to protect the disc from damage and dust. Do not expose the disc to heat or direct sunlight.

LASER PRODUCT CLASS 1

WARNING: If the appliance is used in a way differing from that which is specified in the instructions for use, the user may be exposed to invisible laser radiation exceeding the limit of laser class 1.

CHECKS BEFORE REQUESTING SERVICE

There may be times when you suspect that your car radio is not functioning as you expect it to. Before calling service, please read the operating / mounting instructions and check the following list. You may find that an apparent malfunction can easily be rectified.

Symptoms	Possible Cause / Remedy
General	
Set does not function, No display.	• Check fuse (set and car) and connections
Set functions but with no or poor sound.	• Adjust volume of set to demute set. • Check fader and balance settings.
Detachable front of set feels warm	• some heat is always generated by the set.
Radio	
Poor radio reception	• Check that the aerial is fully extended and properly connected.
Display shows frequency (not station name)	• Set is tuned to non-RDS station.
Display shows 'ALARM'	• Emergency announcement(PTY Alarm) is being broadcast.
Unable to tune to desired station with search tuning	- The desired station is too weak. • Repeat Search tuning with local search mode(LOCAL) off. • Tune to desired station using Manual tuning. • Check that the aerial is fully extended. - Set is in TA mode: only stations. with Traffic Announcements can be tuned in. • If necessary switch OFF the TA mode
Display blinks 'TP' and set beeps.	Set is in TA mode but the selected station is too weak or does not broadcast Traffic Announcements(TA). Switch OFF the TA mode or tune to another station.
CD	
Display shows 'CD ERROR'.	CD inserted upside-down or damaged or dirty or of the wrong type.
Display shows 'TOO HOT'	A built-in safety circuit prevents the temperature in the set from exceeding a certain level. • Wait until 'TOO HOT' disappears from the display.
Distorted sound during playback	Player unable to read disc. CD damaged or dirty.

If you still have to send your set for service, always send the complete set (with detachable front). Do not open the set to service it yourself.

PREVENTIVE MAINTENANCE

To ensure good connection between the set and the detachable part, it is advisable to clean the connectors with a cotton swab from time to time.

MOUNTING INSTRUCTIONS (see pages 3-4)

Aerial: Good reception is only possible with a good aerial. Position the aerial as far as possible from the ignition assembly. The aerial earthing bar or strap must contact clean metal. Protect this contact against corrosion with silicone grease or another rust presenter.

Adapter cables: Specific adapter cables (which simplify connection of the set) are available for many cars. Refer to the table at the end of this booklet. Contact your dealer for further information.

1. POWER SUPPLY

Voltage and polarity: The set must be connected to a 12 V car battery with negative terminal to earth (car chassis).

- Use the same earthing point for the radio and all other audio equipment (to minimize interference).

*Possible connection points for a **permanent** 12 V supply.*
- the supply lead for the car-interior lighting;
- the supply lead for the clock ; or
- a contact in the fuse - box with permanent voltage.
This supply is needed for the set's memory.
This voltage must never be interrupted, even when starting or switching off the engine.
*Possible connecting points for a **switched** 12 V supply.*
- the 12 V lead provided by the car manufacturer for the radio ; or
- the accessory contact of the ignition switch.

⚠ **WARNING: To prevent short-circuiting, disconnect the negative car battery terminal until the set has been mounted and connected.**

1.1 Recommended power supply connections. (see illustration 1.1)

[1] **Brown** lead (A8) : Connect to an earthing point on the car body.
[2] **Yellow/Red** lead (A7): Connect to a **permanent** 12 V supply.
[3] **Red** lead (A4) : Connect to a **switched** 12 V supply.

MOUNTING INSTRUCTIONS (continued)

OPTIONAL CONNECTIONS

1.2 **Electronic/motor aerial :** Connect the **supply for an electronic aerial** or the **control lead for the relay of an automatic motor aerial to pin(A5)**
Do not use this connection point for direct supply of the aerial motor !

1.3 **Telephone mute :** If your car telephone provides a mute signal, it can be used to automatically interrupt the set's audio output. Connect the telephone mute wire to **PINK lead or pin(A1).**

2. SPEAKER CONNECTION

- ***Only use loudspeakers which have an impedance of 4 ohm.***
- ***Ensure that the loudspeakers are connected in phase by using marked speaker terminals for the phase (+) connections.***
- ***Do not connect a booster/amplifier directly to the loudspeaker outputs !***
- ***Do not connect loudspeakers via an external fader !***

2.1 **Connecting 4 loudspeakers** (see illustration 2.1 or 2.2) **4 x** 🔊

Blue : Rear Right phase (RR+)	Blue/Black : Rear Right return (RR-)
Grey: Front Right phase (FR+)	Grey/Black: Front Right return (FR-)
Green: Front Left phase (FL+)	Green/Black: Front Left return (FL-)
Brown : Rear Left phase (RL+)	Brown/Black: Rear Left return (RL-)

2.2 **Connecting 2 loudspeakers** (see illustration 2.3 or 2.4) **2 x** 🔊

Grey : Right phase (R+)	Blue/Black : Right return (R-)
Green: Left phase (L+)	Brown/Black : Left return (L-)

This radio is designed for both general mounting for EUROPEAN/USA vehicles and fixed mounting for JAPANESE vehicles.

According to the type of your car, install the radio in following ways.

3. REMOVABLE MOUNTING

Install the radio using universal mounting sleeve for EUROPEAN vehicles.

[1] Insert the metal sleeve into the opening (182 x 53 mm) in the car dashboard or console.

[2] Fix the metal sleeve into place by pressing the metal tags outward using a screw
Rear support : Depending on car mounting situation, a rear support may be necessary. Certain cars are provided with a rear support hole. For other cars, a rear support bracket should be fitted.

[3] Connect the radio referring to connecting instruction (see below point 5.)

[4] Slide the radio into the metal sleeve until the springs at either side of the radio snap into the openings of the sleeve.

MOUNTING INSTRUCTIONS (continued)

4. FIXED MOUNTING

[1] Holes are pre-tapped for TOYOTA, NISSAN and MAZDA(see illustration 8.1).

[2] Secure mounting accessories such as bracket or screws to the chassis.
If those are not prepared, consult your garage.

Note: Do not use unproper screws. The maximum usable size is **'M5x6 screw'**
Using other screw can result in damage of the unit.

[3] Remove detachable rim and springs at both side of unit (see illustration 8.2)

5. CONNECTION RADIO

5.1 Fit antenna adapter if needed.
5.2 Insert aerial plug into aerial adapter/socket.
5.3 Insert loudspeaker plug B into socket B.
5.4 Insert power supply plug A into socket A.
5.5 Line output : you can connect a power amplifier
(with additional loudspeakers) to this set.

6. REMOVING RADIO

6.1 REMOVABLE MOUNTING (see illustration 7).
You can unlock the radio using the two U-brackets supplied.
Insert both U-brackets(x) into the holes(y) on the front of the set until they lock
Remove the radio from the metal sleeve.

6.2 FIXED MOUNTING
To unlock the radio from dashboard in JAPANESE car, remove the radio in a reverse way of mounting.

INTERFERENCE SUPPRESSION

Most modern cars have sufficient interference suppression. If you experience interference generated by the car, consult your garage.